

Date: Wednesday, 3/8/2006 10:38:16 AM  
User: Kim Johnston

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DUCT
Job Number	: 26117		
Estimate Number	: 12315		
P.O. Number	: N/A	Part Number	: D34731
This Issue	: 3/8/2006 S.O. No. : N/A	Drawing Number	: D3473 REV A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : PURCHASED PARTS	Drawing Revision	: A
Previous Run	: N/A	Material	: N/A
Written By	: <u>See Comment Below</u>	Due Date	: 3/31/2006
Checked & Approved By	: <u>06-03-08</u>	Qty:	10 Um: Each
Comment	: Est Rev:A New Issue 06-03-02 JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: Issue P/O: 00000768 06/03/09  
E-mail or Ship DXF file to vendor  
Laser cut flat pattern as per Dwg D3473  
Possible supplier: Ind. Laser  
Material release note is required.

2.0	D34731F	DUCT FLAT PATTERN
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Comment: Qty.: 1.0000 sf(s)/Unit Total : 6.0000 sf(s)  
FLANGE PLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1  
Receive & Inspect For Transit Damage  
Ensure material certification is attached

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr if necessary.

2-Roll as per Dwg D3473

SRB 06/04/09 9

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		One taken for template	JB	06/03/29	1	JB	JB

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/04/26

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/04/24	5	2 piece were Scrap out of Tolerance	JB	Scrap + destroy	JB	JB	JB	JB

NOTE: Date & initial all entries

Date: Wednesday, 3/8/2006 10:38:17 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUCT

Job Number: 26117

Part Number: D34731

Job Number:



Seq. #:

Machine Or Operation:

Description :

3-Form Small Flange as per Dwg D3473 using DT8861 Base & Dt8847B Male Die

4-Form Large Flange as per Dwg D3473 Using DT8862

5-Spot Weld as per Dwg 3473

6.0

QC5/

WELD INSPECTION



Comment: WELD INSPECTION

SB 06/04/24

90  
7

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

06/04/25

7

8.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/04/26

7

Job Completion



06/04/26

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

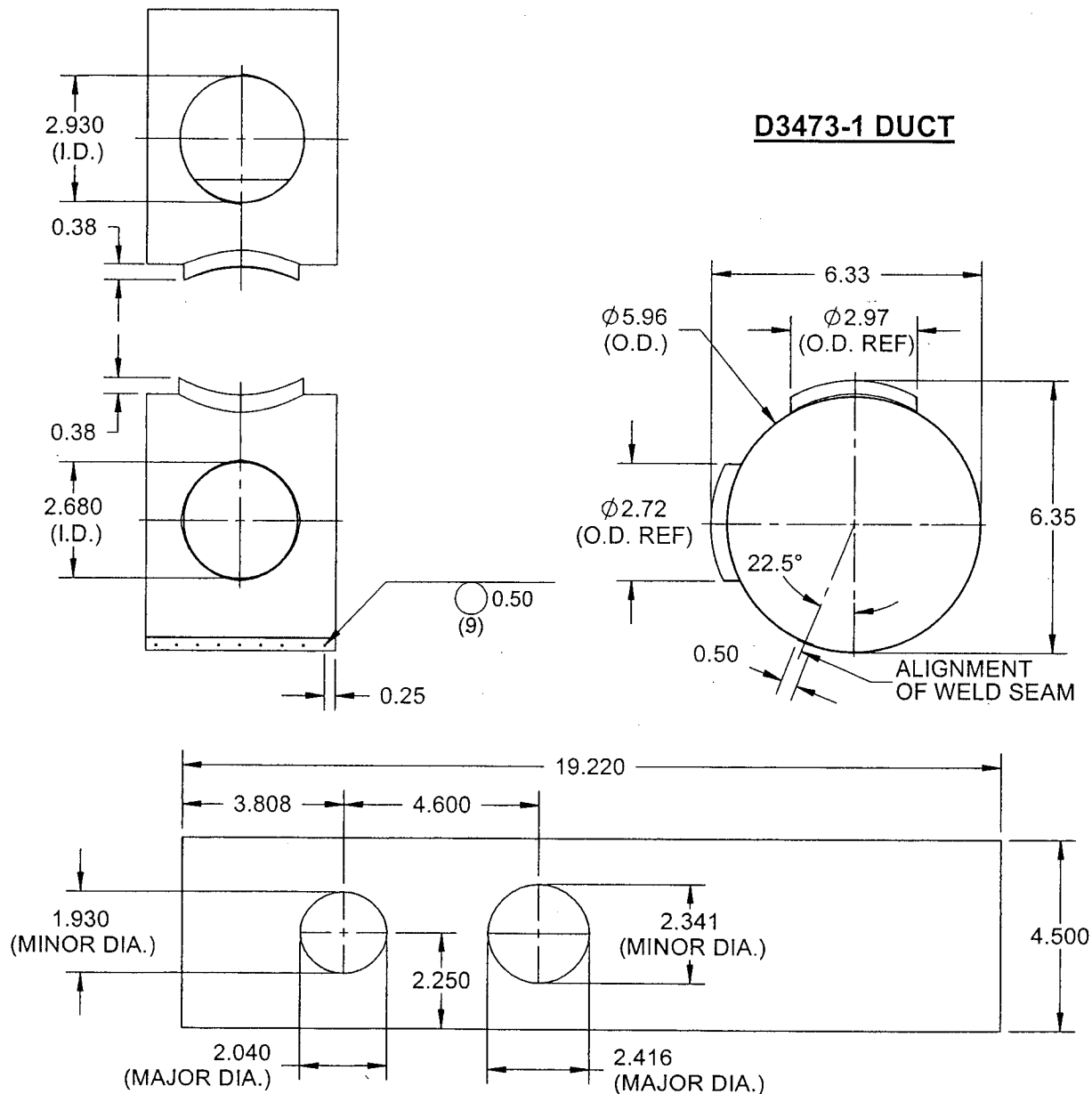
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

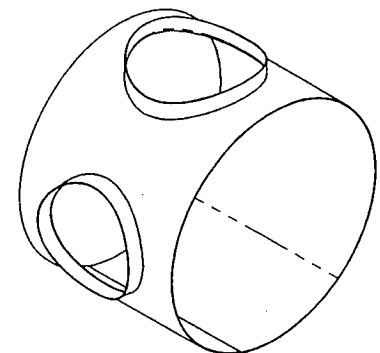
# PRELIMINARY ISSUE

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. <b>D3473</b>	REV. A SHEET 3 OF 7
DATE <b>06.02.07</b>	TITLE <b>BLOWER INLET ADAPTER</b>		SCALE 1:4



## NOTES:


- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED)  
2B FINISH 26 GAUGE SS (0.018 THICK)
- 2) SPOT WELD PER DART QSI 004
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.005 TO 0.010




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3/17/06  
604-946-4153  
ATTN: PETE

		<b>AK Steel Corporation</b> Metallurgical Test Report Cochranton Works Cochranton, OH 43812		Page 1							
INTERGRIS METALS P.O. BOX 340 MINNEAPOLIS, MN 5540		INTERGRIS METALS 300 B STREET ALBUQUERQUE, NM 87001		Lead No. 7410672 GEN No. 7410672							
C I N T E R G R I S M E T A L S P O B O X 3 4 0 M I N N E A P O L I S M N 5 5 4 0		MILL ORDER NO. 77106-0191 PART NO. 7410672 EXPLANATIONS - PRODUCT - METRIC UNITS #10 NOM 48.000 X COIL		BUYER'S ORDER NO. 427116-01							
SKU ID	QUANTITY	HEAT	PARENT COIL ID	NET WEIGHT							
SK071313	1	710751	650019-01	3,245 LBS. 402 KG.							
SK071314	1	710751	650019-01	3,245 LBS. 402 KG.							
SK071315	1	710751	650019-01	3,245 LBS. 402 KG.							
SK071316	1	710751	650019-01	3,245 LBS. 402 KG.							
TOTAL SKIDS	4			12,980 LBS. 1605 KG.							
L-Label Analysis of Heat P-Product Analysis of Parent Coil <b>CHEMICAL ANALYSIS</b>											
ID	C	MIN	P	S	SI	CR	NI	MO	N	CU	CO
L 710751	.049	1.33	.077	.001	.35	18.18	8.05	.35	.04	.30	.12
SHIPPING DATE: 03/17/2005 REMARKS: NO INTENTIONAL ADDITIONS OF MERCURY OR MERCURY COMPOUNDS, RADIUM, ALPHA SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL. <b>PRODUCT DESCRIPTION</b> CR SHY TYPE 304 STAINLESS STEEL FINISH SLIT EDGE * AMS 3213 * ALL TEST RESULTS HAVE BEEN MET UNLESS NOTED OTHERWISE * A STRIP 240 -04 EX FMEA 3.1.3 BEING WILL BE DETERMINED BY AMS 3213 * AFTER A 400 -01 EX FMEA 19.1.1 BEING WILL BE DETERMINED BY AMS 3213 * EX FMEA 28.1.1.3 COIL WILL BE TAPPED ON OUTSIDE CHIEF * AFTER A 666 -03 * EX-011 Rev 0, * EX-011 Rev 0 * BUYER PART# 74251487 * ASME SA-240 SECTION II PART B (2004 ED., 2002 REVISION) EX FMEA 3.1.3 BEING WILL BE DETERMINED BY AMS 3213 * EX-10204 3.1.3											
PARENT COIL ID	FOR IDENT	ONE (L, T, D)	COND	2 INCH MEASURED	TENSILE STRENGTH (ksi)	YS (ksi)	ELONGATION (%)	ROCKWELL HARDNESS	ROCKWELL HARDNESS	ROCKWELL HARDNESS	ROCKWELL HARDNESS
427116-01	1	1	1	1	1	1	1	1	1	1	1

\*\*\*CONTINUED ON NEXT PAGE\*\*\*

		INTERLIS METALS PO BOX 130 MINNEAPOLIS, MN 55440		S P I T 0	INTERGRIS METALS 306 E STREET AUBURN, WA 98001		PART NO. 742107 ENGLISH UNITS - PRODUCT - METRIC UNITS 975 NOME 4800 X COIL	
		INTERGRIS METALS 427136-01 BUYERS ORDER NO. 427136-01			MILL ORDER NO. 427136-01 PROCESSOR ORDER NO. 427136-01 BUYERS ORDER NO. 427136-01			
Metallurgical Test Report Coshocton Works Coshocton, OH 43812		Load No. 7410672 BRN No. 7410672	Page 2					

PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
059919-02	ID	(W)	(L, T, D)	ASTM	COND	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS
PARENT COIL	POS	DIR	COND	ASTM	BEWD	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS	ASTM	PASS

THIS CERTIFIED TEST REPORT HAS BEEN OBTAINED TO A COISSURE OF PHYSICAL PROPERTIES FROM AN  
 INDEPENDENT LABORATORY. IT MUST BE READ AND UNDERSTOOD BY THE USER OF SUCH INFORMATION.  
 ALL TESTS WERE DONE IN ACCORDANCE WITH ASTM STANDARDS UNLESS OTHERWISE NOTED.  
 AT THE DISCRETION OF THE USER.

DATE 05/19/2005 THE 1961 IN.  
 APPROVED BY: *[Signature]*

# MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 1  
Heat/Lot : 86K8  
TIN : B42748

Sold To: INTEGRIS METALS, LTD.  
7910 40TH STREET SE  
CALGARY, AB T2C2Y3

Ship To: \*\*\*CUSTOMER PICKUP\*\*\*  
4375 14TH STREET NORTHEAST  
CALGARY  
ABT3E7A9

## Vendor Information

Cust PO #: 406824

Cust PO DT: 11/03/05

## Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.  
ASTMA240/04a 480/04a, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04  
Q08766D-A X 1/8 PRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CRWN MEAS  
CORROSION: ASTM A262/02aB; 180Bend-OK  
Buyer Part: 4288441  
304 2B .1305 IN 48 IN 96 IN  
Country of Origin: UNITED STATES

## Mechanical Tests

	UOM	L	O	UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV		
Tensile Strength (UTS)	93.3	KSI	F	TRANSV		
Rockwell B	85		F	TRANSV		
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV		
Rockwell A	85		T	TRANSV		

## Chemical Composition

C Carbon-Fct	.059	CR Chromium-Pct	18.360
CU Copper-Fct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Fct	8.150	P Phosphorus-Pct	.029
SI Silicon-Fct	.289		

## Comments



# MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 2  
Heat/Lot : 86K8  
TIN : B42748

Material free from mercury contamination. No weld repairs.  
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 Q08763F Cond A  
This document certifies the material has been tested in  
accordance with applicable specifications described herein  
and has met those requirements.

QA by ERIC HESS 02/01/2006

## Miscellaneous Data

GUELPH, ONT. K123  
Control #: S/C60214  
Part #: 74271441  
.135 X .48 X .96

Date: 03/17/06

SOLD TO: INDA. LAFER

TO 110880

S/O 90-374786 - 02

*[Signature]* 3/17/06

The Chemical Analysis and Mechanical Test  
data was received via EDI from the above  
mentioned vendor.

INTEGRIS METALS, LTD.

